

In an alternate embodiment illustrated in Fig. 3 of Schewe, the magnetic coil device "is not formed by two planar coil windings." See column 6, lines 25-26. Instead, a single coil winding 33 is used, which is wound around the central magnet leg 6 of a conduction body 16. See column 6, lines 26-27. As described by Schewe, the current conductor parts 34 and 35 of the coil winding 33 are arranged "by a thin-film technique, structured and then connected to each other to form a single coil winding 33." See columns 6, lines 32-35. In other words, the left and right halves of the coil winding 33 shown in Fig. 3 are arranged in two separate thin film layers that are separated by another layer comprising the central magnet leg 6. The current conductor parts 34 and 35 are then electrically connected together to form the single coil winding 33 that is wound around the central magnet leg 6. Clearly, the single coil winding 33 cannot be described as flat or planar, as it includes portions 34 and 35 which lie in separate planes and which extend around a central magnet leg 6 lying in still another plane. In fact, the Schewe reference itself states that the magnetic coil device shown in Fig. 3 is not formed by planar coil windings. See column 6, lines 25-26.

In contrast to the magnetic recording head disclosed in Fig. 1 of Schewe, the magnetic recording head of the present invention uses only one magnetic coil for magnetically energizing two recording gaps. And unlike the head disclosed in Fig. 3 of Schewe, the single coil that is used to energize the two recording gaps in the recording head of the present invention is planar.

To distinguish the present invention over Schewe, independent claims 11 and 48 have been amended herein to specifically recite a planar thin film magnetic coil that is used to magnetically energize both gaps of the recited magnetic recording head. Independent claims 52 and 59 already recite a thin film coil for energizing multiple gaps, where the thin film coil substantially lies in a single plane. Thus, independent claims 52 and 59 already distinguish over the Schewe reference.

Nowhere does Schewe suggest that one planar coil can be used to magnetically energize two recording gaps. On the contrary, Schewe teaches that if planar coils are to be used, then two such coils will be required to energize two recording gaps. Schewe also teaches that if a single coil is to be used for energizing multiple gaps, then a non-planar coil wound around a magnetic pole piece must be

employed. (This is similar to the non-planar coil windings disclosed in the Jeffers reference, discussed below).

The Examiner's earlier assertion that the coil device 18 disclosed in Schewe is a single magnetic coil that energizes multiple recording gaps is not persuasive, and is not supported by a fair reading of the Schewe reference. As explained above, Schewe merely discloses two planar coils for energizing two recording gaps in one embodiment, and one non-planar coil for energizing two recording gaps in another embodiment. Nowhere does Schewe disclose or suggest that a single planar coil can be used to magnetically energize multiple recording gaps.

Given that the independent claims clearly define the present invention over the Schewe reference, applicant need not address the other contentions set forth in Paper No. 15 regarding the dependent claims.

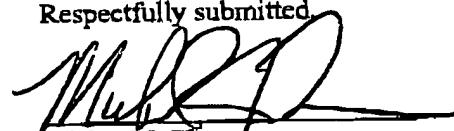
For all the above reasons, the Examiner is respectfully requested to reconsider and withdraw the Section 102 and Section 103 rejections based on Schewe.

In the latest Office Action, the pending claims were also rejected based on U.S. Patent No. 4,908,724 to Jeffers. However, as noted by the Examiner during the phone interview with the undersigned on February 16, 1999, the rejection based on the Jeffers reference is "not as strong" as the rejections based on Schewe. Applicant agrees with this statement, and notes that Jeffers does not even disclose a thin film magnetic recording head, or a magnetic recording head employing one or more planar coil windings. Thus, Jeffers is clearly less relevant than Schewe, which itself fails to disclose or suggest a magnetic recording head having multiple gaps that are energized by a single planar coil winding, as explained in detail above. For these reasons, applicant respectfully submits that the rejection based on Jeffers should likewise be withdrawn.

In view of the amendments and remarks provided above, applicant respectfully submits that all of the pending claims are patentable, and that the subject application is now in condition for allowance. Nevertheless, in the event that any issues remain outstanding, the Examiner is invited to

contact the undersigned by phone to expedite issuance of the expected patent. Favorable action is  
earnestly solicited.

Respectfully submitted,



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